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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,736	07/28/2005	Kentaro Tomii	0987/0203042-US0	9152

7278 7590 01/26/2007  
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NEW YORK, NY 10150-5257

EXAMINER
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DESTA, ELIAS

ART UNIT	PAPER NUMBER
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2857

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/26/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/540,736

Applicant(s)

TOMII, KENTARO

Examiner

Elias Desta

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 October 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10/25/2006.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

*Detailed Action*

*Response to Amendment*

1. The information disclosure statement (IDS) submitted on 10/25/2006 is considered. The Examiner acknowledges the changes in the title of the invention and accepts the amendment to the specification and the drawing filed on 10/25/2006.

*Explanation of rejection*

Claim rejection – 35 U.S.C. 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-5 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

A claim is limited to a practical application when the method, as claimed, produces a concrete, tangible and useful result; i.e., the method recites a step or act of producing something that is concrete, tangible and useful. Referring to the "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" in determining whether the claim is for a "practical application," the focus is not on whether the steps taken to achieve a particular result are

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useful, tangible and concrete, but rather that the final result achieved by the claimed invention is "useful, tangible and concrete."

In reference to claims 1, 3 and 5: The claims are directed to measuring "the similarity between protein profile matrices to predict a protein three-dimensional structure" and yet the outputs from claims 1, 3 and 5 as noted in step "c" respectively are designated as a method or a system for "forming a score matrix [that includes the] correlation coefficients". Therefore, the outputs of claims 1, 3 and 5 do not amount to a "useful, concrete and tangible" result.

In reference to claims 1 and 2, the "means" corresponds to computer software, such as a dynamic programming noted in page 5 of the instant specification, which helps process the two amino acid sequences. The claims are therefore treated as the equivalent of method claims. As such, the claims lack a physical transformation, or a "useful, concrete and tangible" result.

The steps of "forming a score matrix" and having a "correlation coefficient" data do not constitute a "useful, concrete and tangible" result. The system or method in claim is directed to "measuring the similarity between profile matrices" and yet in step (c), the system only carries out a "score matrix" having a "correlation coefficients." The outcome is useful and tangible, but it lacks a "concrete result" because the measurement of the similarity between the protein profile matrices is not conveyed to the user. Therefore, in the absence of a "useful, concrete and tangible" result, the claims are deemed to be non-statutory.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Kubitscheck et al. (JOM Article, 'Three-Dimensional Diffusion Measurements by Scanning Microphotolysis') teaches a method of combining micophotolysis with unifocal laser scanning microscopy and numerical data evaluation in a manner that small volumes can be carried out by photolysis within the extended three-dimensional samples and that fluorescence changes can be monitored at high time resolution and evaluated for lateral diffusion coefficients.

### *Response to Argument*

5. Applicant's arguments filed 10/25/2006 have been fully considered but they are not persuasive.

In reference to claims 1-5: as noted above, the claims are directed for measuring "the similarity between protein profile matrices to predict a protein three-dimensional structure"; however, the output from claims 1, 3 and 5 as noted in step "c" are "forming a score matrix comprising [the] correlation coefficients". Therefore, the outputs of claims 1, 3 and 5 do not amount to "useful, concrete and tangible" result.

The Examiner believes that (In claims 1 and 2), the "means" corresponds to computer software, such as a dynamic programming noted in page 5 of the instant specification, that helps process the two amino acid sequences. The claims are therefore treated as the equivalent of method claims. As such, the claims lack a physical transformation, or a useful, concrete and tangible result.

*Conclusion*

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, *THIS ACTION IS MADE FINAL*. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elias Desta whose telephone number is (571)-272-2214. The examiner can normally be reached on M-Th (8:30-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571)-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications


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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Elias Desta  
Examiner  
Art Unit 2857

- E.d.

- January 10, 2007

  
MARC S. HOFF  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800